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EXAMINER

NALEVANKO, CHRISTOPHER R

ART UNIT PAPER NUMBER

2611

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,832

Applicant(s)

ALBRIGHT, BARRY WYNN

Examiner

Christopher R Nalevanko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/27/2000.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 21, the claim refers back to Claim 0, which is not a claim.

Appropriate correction is required.

***The following art rejections are based on the Examiner's best understanding of the art in light of the above 35 USC 112 2nd paragraph rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 7-13, 22 and 24 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Grivna (6,385,745).

Regarding Claim 1, Grivna shows an apparatus comprising an inverted DVB-ASI signal (col. 2 lines 54-64, receiving both a true and compliment DVB-ASI stream), and an inverting adapter to invert the inverted DVB-ASI signal (col. 3 lines 1-65, producing a complimented inverted signal).

Regarding Claim 3, Grivna shows that the adapter inverts the DVB-ASI signal to produce an adapted signal (col. 3 lines 1-65, producing a complimented inverted signal), and the adapted signal is coupled to a monitor (col. 3 lines 30-45, output to state machine, col. 4 lines 38-45, state machine monitors data signal) and a network (col. 2 lines 60-63, col. 5 lines 35-40, outputting signal to SMPTE switches and routers).

Regarding Claim 7, Grivna shows a routing switcher (fig. 1, col. 2 lines 60-64, output port used to route DVB-ASI streams), the routing switcher coupled to an input DVB-ASI signal and producing an output DVB-ASI signal and the inverted DVB-ASI signal (col. 2 lines 54-64, receiving both a true and compliment DVB-ASI stream, col. 3 lines 1-65, producing a complimented inverted signal).

Regarding Claim 8, Grivna shows a serial digital video source (col. 1 lines 10-30, serial interface for producing digital serial video) that produces an encoded signal (col. 1 lines 20-25, MPEG2 encoding), wherein the SDV signal is coupled to the routing switcher (col. 2 lines 27-31, implemented using switches, lines 54-64, used to route DVB-ASI streams, col. 1 lines 30-61, routing switches used for digital video and DVB-ASI signals), wherein the routing switcher produces an output signal and an inverted signal (fig. 3 items 66, 68, 70, 72, 90, 92, col. 3 lines 10-25, regular signal input from

source and inverted signal from source). Furthermore, the DVB-ASI format is a serial digital video format.

Regarding Claim 9, Grivna shows the use of an encoder for encoding the signal (col. 1 lines 20-25, MPEG2 decoder).

Regarding Claim 10, Grivna shows a differential amplifier having an input coupled to the input DVB-ASI signal (fig. 3 items 74, 76, col. 3 lines 10-40) and having true and complement outputs (col. 2 lines 55-63, true and compliment output streams), wherein the true output is the output DVB-ASI signal and the complement output is the inverted DVB-ASI signal (col. 2 lines 55-63, true and compliment output streams).

Regarding Claim 11, Grivna shows that routing switches may be used in the adapter (col. 2 lines 27-32, implemented using switches) or that the entire adapter is used to route and switch DVB-ASI signals (col. 2 lines 55-63, route DVB-ASI, data streams). Also the adapter uses switches, as stated above, to route the correct signal (col. 3 lines 40-65, data may be switched between multiple sources).

Regarding Claim 12, Grivna shows a distribution amplifier (fig. 3 items 74, 76, col. 3 lines 10-40), the distribution amplifier coupled to an input DVB-ASI signal and producing an output DVB-ASI signal and the inverted DVB-ASI signal (col. 2 lines 55-63, true and compliment output streams).

Regarding Claim 13, Grivna shows the distribution amplifier comprises the inverting adapter (fig. 3 item 56, logic circuit comprises components including amplifiers).

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Regarding Claim 22, the limitations of the claim have been discussed with regards to Claim 1.

Regarding Claim 24, the limitations of the claim have been discussed with regards to the apparatus of Claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 4-6, 14-20, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grivna (6,385,745) in further view of Takahashi et al (2002/0145661).

Regarding Claim 2, Grivna shows the user of a transform coupled to the signal (col. 4 lines 14-18), but fails to specifically state using primary and secondary windings. Takahashi shows using primary and secondary windings in a transformer (page 8 section 0107, primary and secondary windings). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna with primary and secondary windings, as in Takahashi, so that the correct signal was applied to the circuit. Furthermore, although not specifically stated in Grivna, it is expected in the art for transformers to have primary and secondary windings

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Regarding Claim 4, Although Grivna fails to specifically state the windings, which are shown by Takahashi, Grivna shows that the opposite sides have opposite polarity (col. 3 lines 54-65, INA+ and INB-, INA- and INB+) and that the adapter inverts the signal to produce an adapted signal (col. 3 lines 1-65, producing a complimented inverted signal).

Regarding Claim 5, Although not specifically state in Grivna or Takahashi, Official Notice is taken that it is well known and expected in the art to use a variety of windings ratios, including an equivalent number, in order to produce a desired signal. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivana and Takahashi with the use of equivalent primary and secondary windings so that the adapted signal would be suitable for processing and use.

Regarding Claim 6, Grivna shows that the adapter comprises a body (fig. 3, logic circuit 56) and input output connectors (col. 3 lines 10-39, input and outputs), wherein the adapter is enclosed in the body (fig. 3, logic circuit 56), and the body is electrically and mechanically coupled to the inputs and outputs (fig. 3, logic circuit 56 is connected and coupled to the outputs of col. 3 lines 10-39, fig. 3 items 66, 68, 70, 72, 90, 92).

Regarding Claim 14, Grivna shows a system comprising a Digital Video Broadcast-Asynchronous Serial Interface (DVB-ASI) encoder producing a DVB-ASI output signal (col. 1 lines 20-25, MPEG2 encoded signal), amplification device comprising true and complement outputs (col. 2 lines 55-63, true and compliment output streams) and an input coupled the DVB-ASI signal (fig. 3 items 74, 76, col. 3 lines 10-

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40), the true output comprising the DVB-ASI signal and the complement output comprising an inverted DVB-ASI signal (col. 2 lines 53-63, compliment INA and INB input signals), and an inverting adapter comprising transformer, coupled to the inverted DVB-ASI signal (col. 4 lines 14-18), wherein a polarity of the secondary side is opposite to a polarity of the primary side (col. 3 lines 54-65, INA+ and INB-, INA- and INB+), whereby the inverting adapter inverts inverted DVB-ASI signal to create an adapted DVB-ASI signal (col. 3 lines 1-65, producing a complimented inverted signal). Grivna shows the user of a transform coupled to the signal (col. 4 lines 14-18, but fails to specifically state using primary and secondary windings. Takahashi shows using primary and secondary windings in a transformer (page 8 section 0107, primary and secondary windings). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna with primary and secondary windings, as in Takahashi, so that the correct signal was applied to the circuit. Furthermore, although not specifically stated in Grivna, it is expected in the art for transformers to have primary and secondary windings.

Although not specifically state in Grivna or Takahashi, Official Notice is taken that it is well known and expected in the art to use a variety of windings ratios, including an equivalent number, in order to produce a desired signal. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivana and Takahashi with the use of equivalent primary and secondary windings so that the adapted signal would be suitable for processing and use.

Regarding Claim 15, Grivna shows the use of a routing switcher (col. 2 lines 27-32, implemented using switches, col. 2 lines 55-63, route DVB-ASI, data streams, fig. 1, DVB switch) and amplifiers (fig. 3 items 74, 76, col. 3 lines 10-40).

Regarding Claim 16, Grivna shows the distribution amplifier comprises the inverting adapter (fig. 3 item 56, logic circuit comprises components including amplifiers).

Regarding Claim 17, Grivna shows that the adapter inverts the DVB-ASI signal to produce an adapted signal (col. 3 lines 1-65, producing a complimented inverted signal), and the adapted signal is coupled to a monitor (col. 3 lines 30-45, output to state machine, col. 4 lines 38-45, state machine monitors data signal) and a network (col. 2 lines 60-63, col. 5 lines 35-40, outputting signal to SMPTE switches and routers).

Regarding Claim 18, Grivna shows a serial digital video source (col. 1 lines 10-30, serial interface for producing digital serial video) that produces an encoded signal (col. 1 lines 20-25, MPEG2 encoding), wherein the SDV signal is coupled to the routing switcher (col. 2 lines 27-31, implemented using switches, lines 54-64, used to route DVB-ASI streams, col. 1 lines 30-61, routing switches used for digital video and DVB-ASI signals), wherein the routing switcher produces an output signal and an inverted signal (fig. 3 items 66, 68, 70, 72, 90, 92, col. 3 lines 10-25, regular signal input from source and inverted signal from source). Furthermore, the DVB-ASI format is a serial digital video format. Grivna further shows the use of an encoder for encoding the signal (col. 1 lines 20-25, MPEG2 decoder).

Regarding Claim 19, Grivna shows an inverting adaptor for DVB-ASI signals (col. 3 lines 1-65, producing a complimented inverted signal), the inverting adapter comprising transformer (col. 4 lines 14-18), wherein each side comprise positive and negative connections (col. 3 lines 54-65, INA+ and INB-, INA- and INB+), whereby polarity of secondary side is opposite polarity of the primary side (col. 3 lines 54-65, INA+ and INB-, INA- and INB+), input coupling adapted accept a DVB-ASI signal and comprising an input shell and an input interconnection device (fig. 3 items 66, 68, 70, 72, col. 3 lines 5-30, input connections), wherein the input shell is electrically and mechanically coupled to the body (fig. 3 item 56, col. 2 lines 65-67, logic circuit), and an output coupling comprising an output shell and an output interconnection device, wherein the output shell is electrically and mechanically coupled to the body (fig. 3 items 86, 90, 92, col. 3 lines 30-65, output on logical circuit). Grivna shows the user of a transform coupled to the signal (col. 4 lines 14-18), but fails to specifically state using primary and secondary windings or a body encasing the transformer. Takahashi shows using primary and secondary windings in a transformer (page 8 section 0107, primary and secondary windings) and a body that encases the transformer (fig. 12, items 14(1)-14(7)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna with primary and secondary windings, as in Takahashi, so that the correct signal was applied to the circuit. Furthermore, although not specifically stated in Grivna, it is expected in the art for transformers to have primary and secondary windings.

Also, Grivna fails to show that the second signal and housing are grounded. Takahashi shows grounding signals in order to get rid of noise and produce the correct

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output signal (page 7 sections 0089-0090, 0092-0093). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna with the ability to ground signals as shown in Takahashi so that the correct, undistorted, output signal would be produced.

Although not specifically state in Grivna or Takahashi, Official Notice is taken that it is well known and expected in the art to use a variety of windings ratios, including an equivalent number, in order to produce a desired signal. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivana and Takahashi with the use of equivalent primary and secondary windings so that the adapted signal would be suitable for processing and use.

Regarding Claim 20, Grivna shows that the input interconnection device comprises an input pin (fig. 3 items, 66, 68, 70, 72), wherein the output interconnection device comprises an output receptacle (fig. 3 items 82, 84), wherein the input pin is coupled to the positive connection of the primary side (col. 3 lines 54-65, INA+), and wherein the output receptacle is coupled to the negative connection of the secondary side (col. 3 lines 28-60, supplying both positive and negative, or true and complimented, signals to the multiplexer).

Regarding Claim 23, the limitations of the claim have been discussed with regards to Claim 2.

Regarding Claim 25, Grivna shows an inverting adaptor for DVB-ASI signals to crate an adapted DVB-ASI signal (col. 3 lines 1-65, producing a complimented inverted signal), the inverting adapter comprising transformer (col. 4 lines 14-18), wherein each

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side comprise positive and negative connections (col. 3 lines 54-65, INA+ and INB-, INA- and INB+), whereby polarity of secondary side is opposite polarity of the primary side (col. 3 lines 54-65, INA+ and INB-, INA- and INB+), input coupling adapted accept a DVB-ASI signal and comprising an input shell and an input interconnection device (fig. 3 items 66, 68, 70, 72, col. 3 lines 5-30, input connections), wherein the input shell is electrically and mechanically coupled to the body (fig. 3 item 56, col. 2 lines 65-67, logic circuit), wherein the input pin is coupled to the positive connection of the primary side (col. 3 lines 54-65, INA+), and an output coupling comprising an output shell and an output interconnection device, wherein the output shell is electrically and mechanically coupled to the body (fig. 3 items 86, 90, 92, col. 3 lines 30-65, output on logical circuit). Grivna shows the user of a transform coupled to the signal (col. 4 lines 14-18), but fails to specifically state using primary and secondary windings or a body encasing the transformer. Takahashi shows using primary and secondary windings in a transformer (page 8 section 0107, primary and secondary windings) and a body that encases the transformer (fig. 12, items 14(1)-14(7)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna with primary and secondary windings, as in Takahashi, so that the correct signal was applied to the circuit. Furthermore, although not specifically stated in Grivna, it is expected in the art for transformers to have primary and secondary windings.

Also, Grivna fails to show that the second signal and housing are grounded. Takahashi shows grounding signals in order to get rid of noise and produce the correct output signal (page 7 sections 0089-0090, 0092-0093). Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna with the ability to ground signals as shown in Takahashi so that the correct, undistorted, output signal would be produced.

Although not specifically state in Grivna or Takahashi, Official Notice is taken that it is well known and expected in the art to use a variety of windings ratios, including an equivalent number, in order to produce a desired signal. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivana and Takahashi with the use of equivalent primary and secondary windings so that the adapted signal would be suitable for processing and use.

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grivna (6,385,745) in further view of Takahashi et al (2002/0145661) and Wilkins et al (2004/0133924).

Regarding Claim 21, Both Grivna and Takahashi fail to show using a BNC, or British Naval Connector. Wilkins shows using a BNC in a video distribution system (page 4 section 0082). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grivna and Takahashi with the ability to use a BNC so that the system could connect to well known and widely used devices and protocols.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al U.S. Patent No. 6,546,063 discloses an asynchronous clock for adaptive equalization.

Okawa U.S. Patent No. 6,567,988 discloses a video signal transmission apparatus and video signal transmission method.

Lyons et al U.S. Patent No. 6,356,212 discloses a single clock reference for compressed domain processing systems.

Amaral et al U.S. Patent Application Publication No. 2002/0024970 discloses a transmitting MPEG data packets received from a non-constant delay network.

Kobayashi et al U.S. Patent No. 5,754,254 discloses a digital video audio processing apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R Nalevanko whose telephone number is 703-305-8093. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Christopher Nalevanko
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cn

A handwritten signature in black ink, appearing to read "Haitan", is written over three horizontal lines.

**HAI TRAN
PRIMARY EXAMINER**